FIG. 1

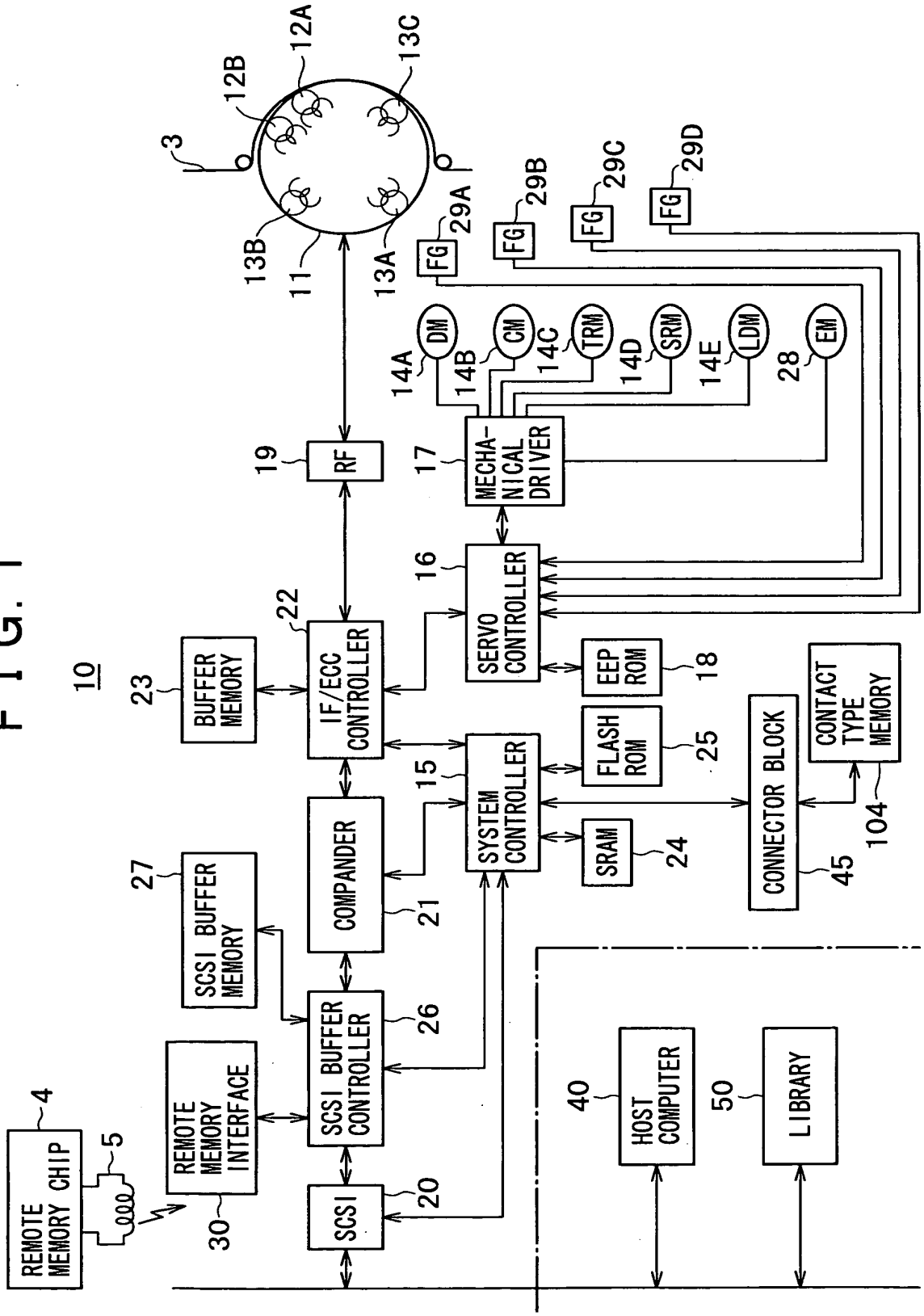

10
REMOTE MEMORY CHIP
4
5
REMOTE MEMORY INTERFACE
30
SCSI
SCSI BUFFER CONTROLLER
20
26
SCSI BUFFER MEMORY
27
COMPANDER
21
IF/ECC CONTROLLER
22
BUFFER MEMORY
23
RF
19
3
12A
12B
13C
13B
11
13A
MECHA-NICAL DRIVER
17
SERVO CONTROLLER
16
SYSTEM CONTROLLER
15
FLASH ROM
25
SRAM
24
EEP ROM
18
CONNECTOR BLOCK
45
CONTACT TYPE MEMORY
104
FG
29A
FG
29B
FG
29C
FG
29D
DM
14A
CM
14B
TRM
14C
SRM
14D
LDM
14E
EM
28
40
HOST COMPUTER
50
LIBRARY

FIG. 2

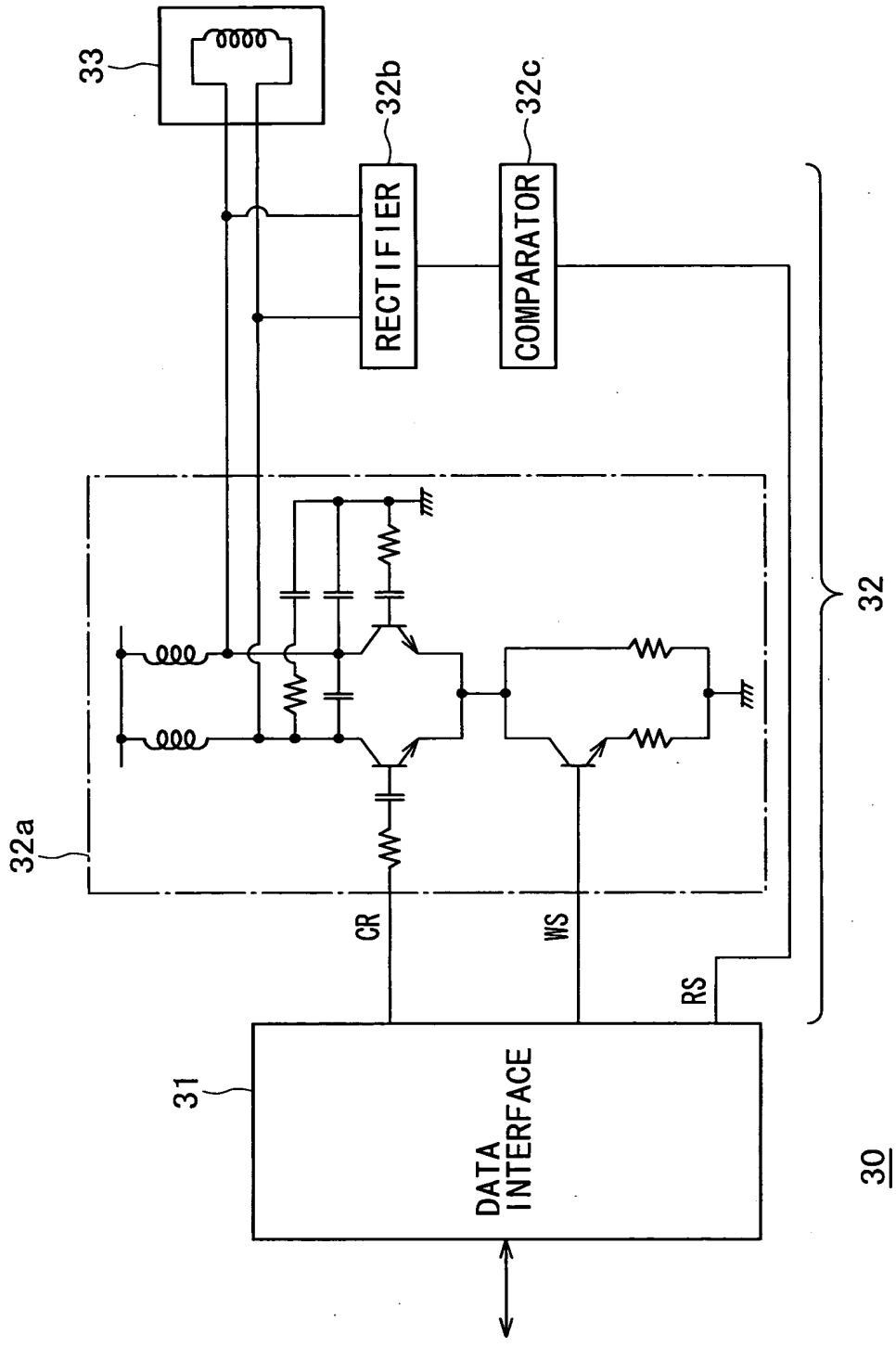

33
32b
32c
RECTIFIER
COMPARATOR
32
32a
CR
WS
RS
31
DATA INTERFACE
30

FIG. 3A

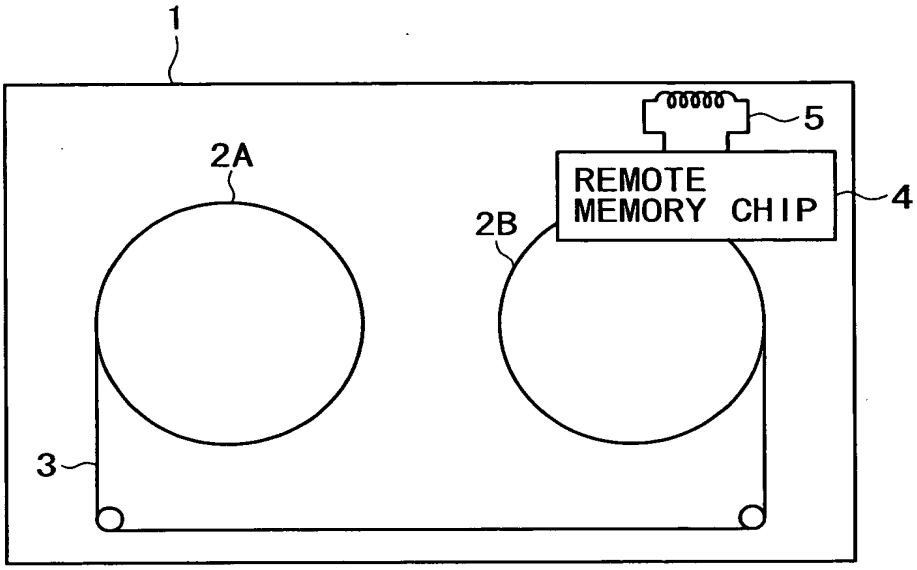

1
5
2A
REMOTE
MEMORY CHIP
4
2B
3

FIG. 3B

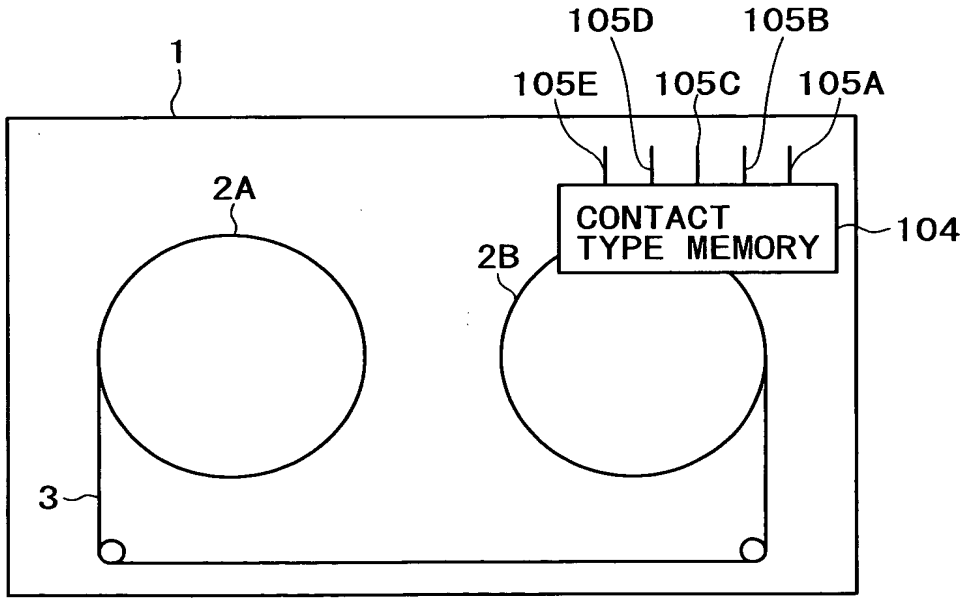

105D
105B
1
105E
105C
105A
2A
CONTACT
TYPE MEMORY
104
2B
3

FIG. 4

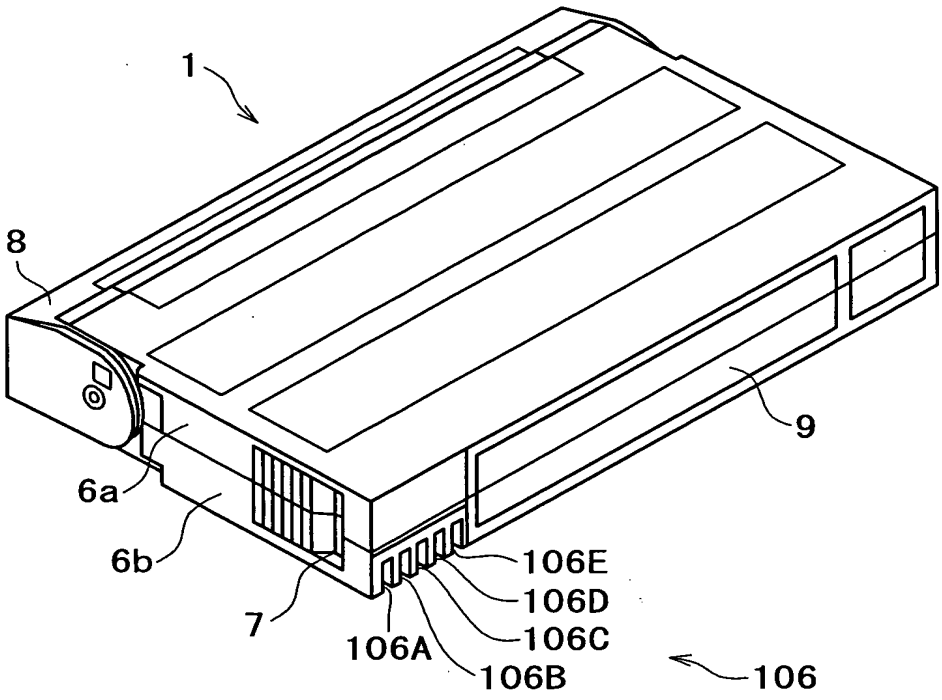
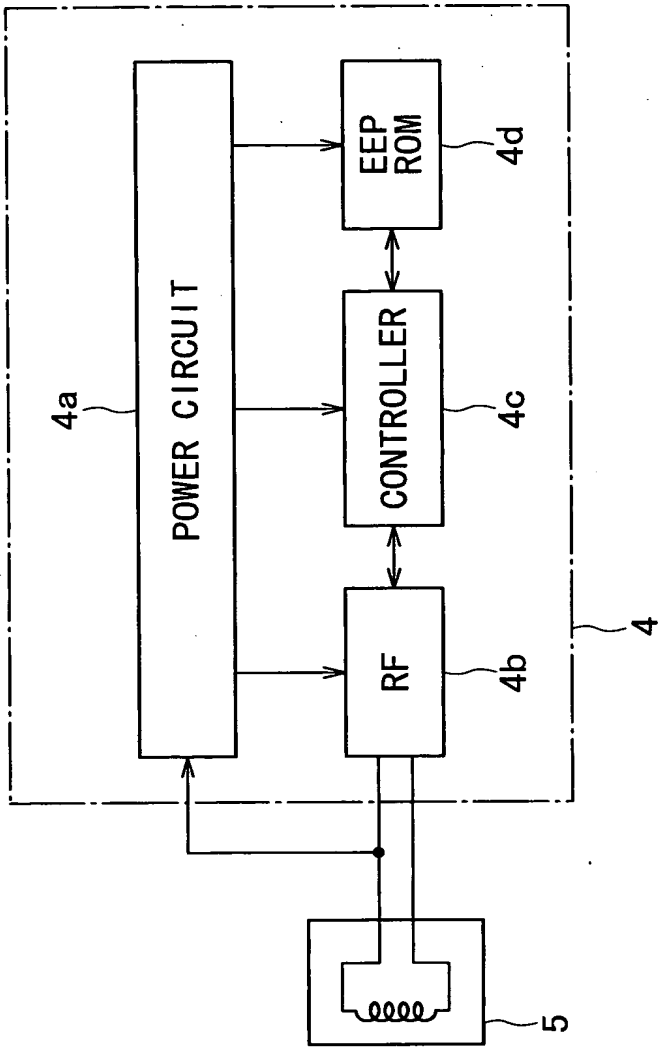


FIG. 5



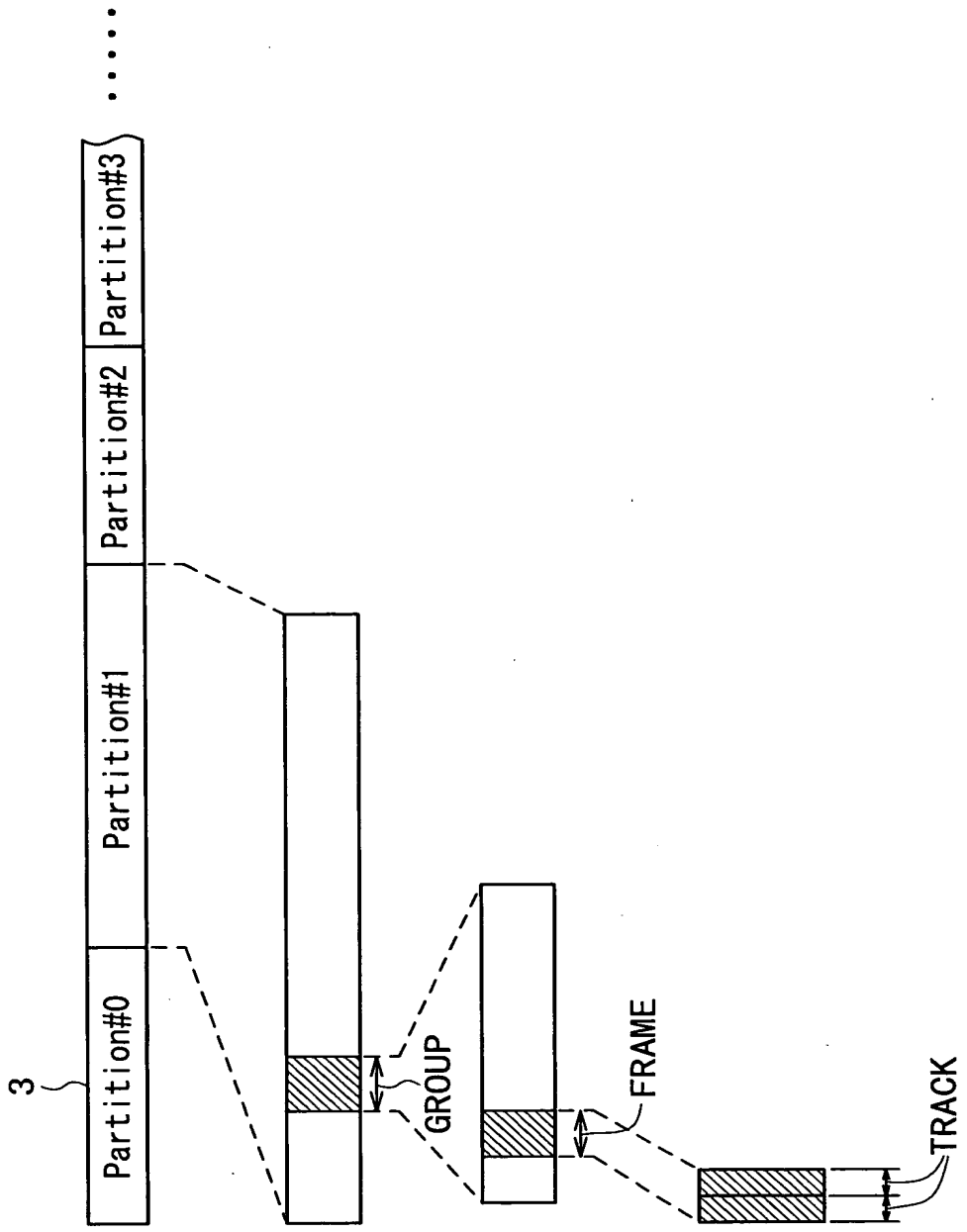



FIG. 6A

FIG. 6B

FIG. 6C

FIG. 6D

FIG. 7A

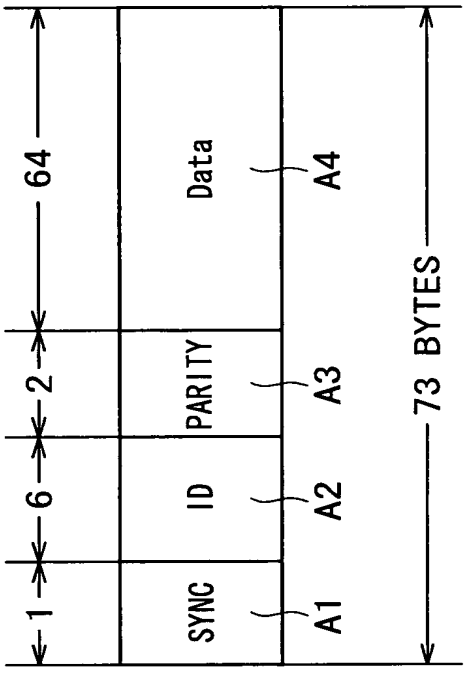



FIG. 7C

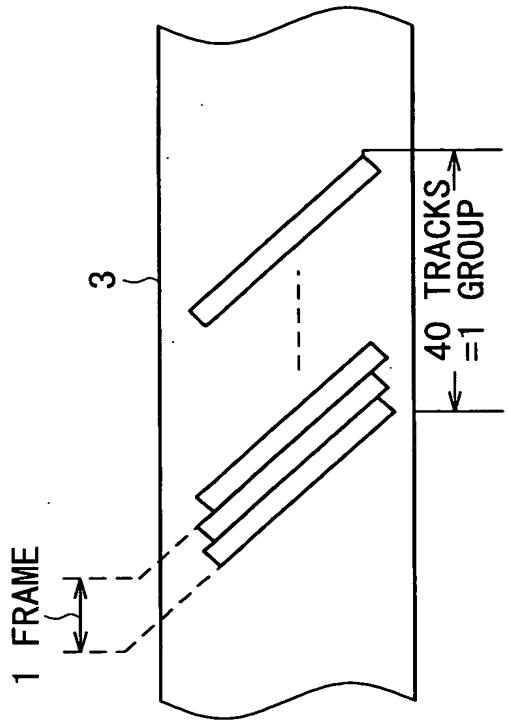
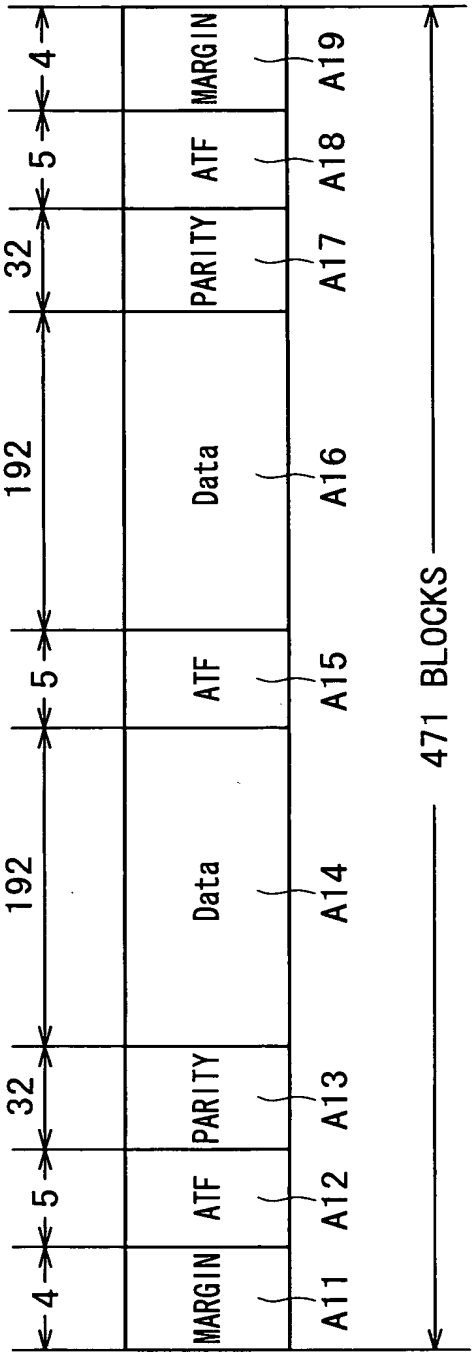



FIG. 7B



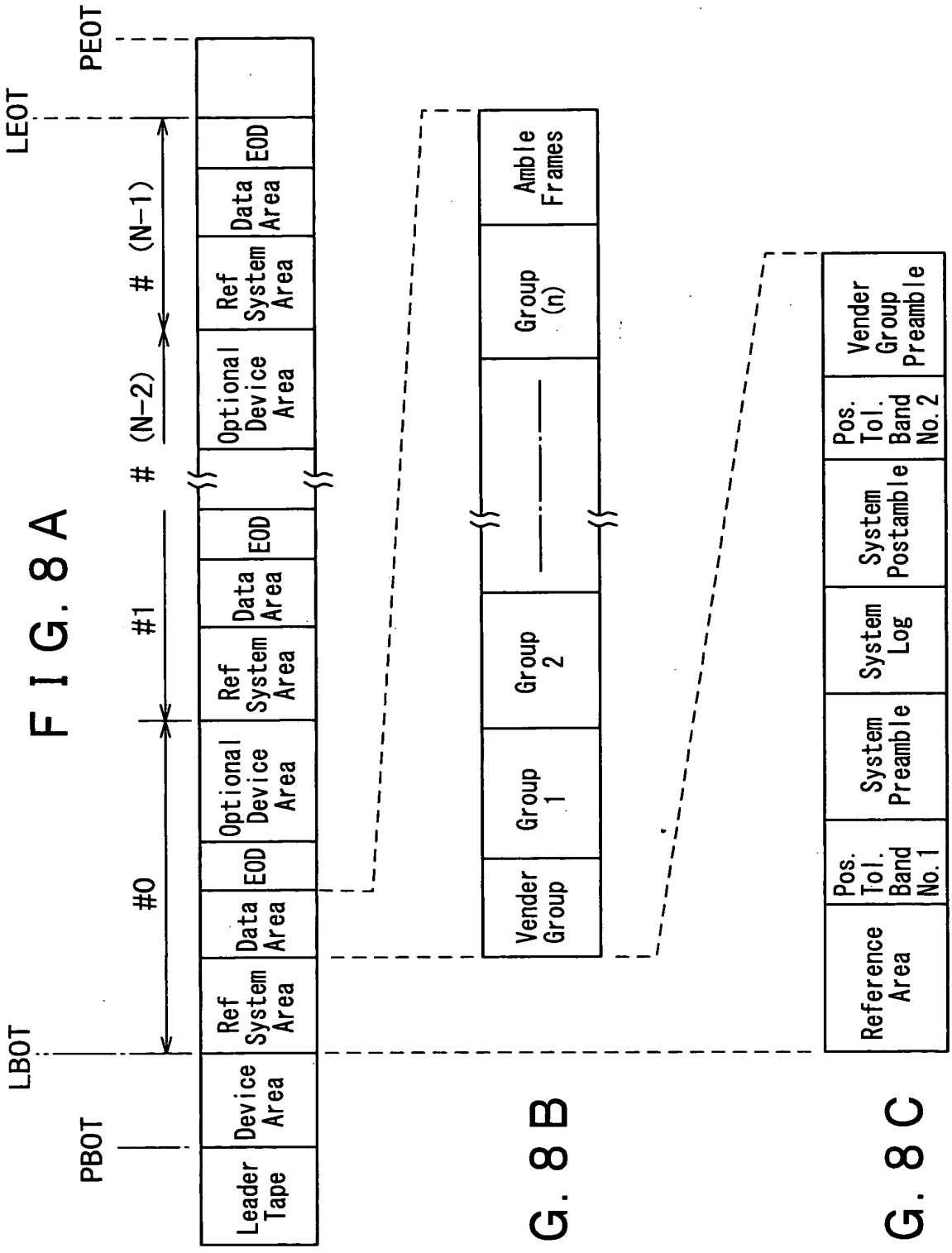



FIG. 8A

FIG. 8B

FIG. 8C

FIG. 9

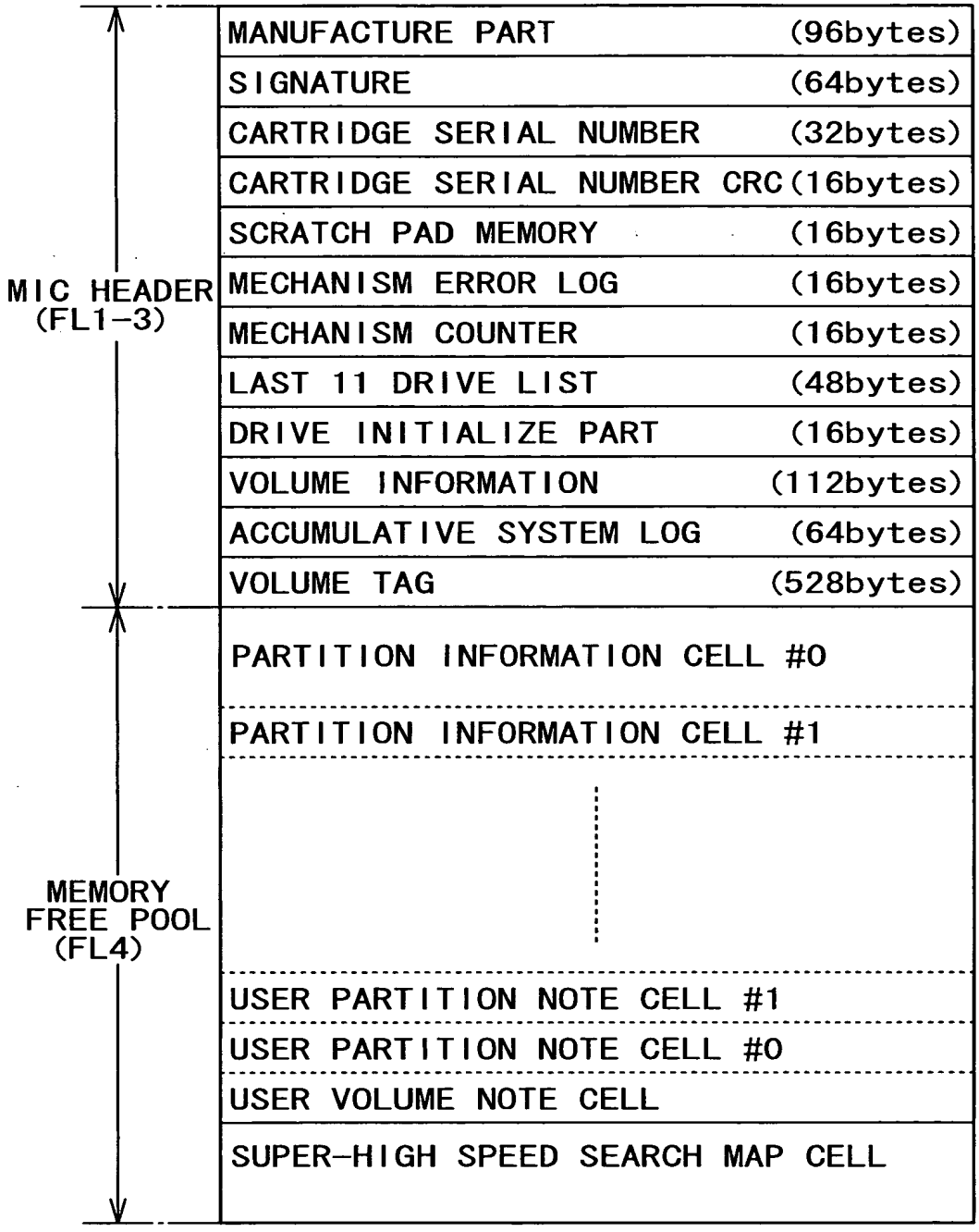

MIC HEADER (FL1-3)
MANUFACTURE PART (96bytes)
SIGNATURE (64bytes)
CARTRIDGE SERIAL NUMBER (32bytes)
CARTRIDGE SERIAL NUMBER CRC (16bytes)
SCRATCH PAD MEMORY (16bytes)
MECHANISM ERROR LOG (16bytes)
MECHANISM COUNTER (16bytes)
LAST 11 DRIVE LIST (48bytes)
DRIVE INITIALIZE PART (16bytes)
VOLUME INFORMATION (112bytes)
ACCUMULATIVE SYSTEM LOG (64bytes)
VOLUME TAG (528bytes)
MEMORY FREE POOL (FL4)
PARTITION INFORMATION CELL #0
PARTITION INFORMATION CELL #1
USER PARTITION NOTE CELL #1
USER PARTITION NOTE CELL #0
USER VOLUME NOTE CELL
SUPER-HIGH SPEED SEARCH MAP CELL

FIG. 10

| | | |
|---|---|---|
| Manufacture Part | manufacture part checksum | 1byte |
| | mic type | 1byte |
| | mic manufacture date | 4bytes |
| | mic manufacture line name | 8bytes |
| | mic manufacture plant name | 8bytes |
| | mic manufacturer name | 8bytes |
| | mic name | 8bytes |
| | cassette manufactured date | 4bytes |
| | cassette manufacturer line name | 8bytes |
| | cassette manufacturer plant name | 8bytes |
| | cassette manufacturer name | 8bytes |
| | cassette name | 8bytes |
| | oem customer name | 8bytes |
| | physical tape characteristic ID | 2bytes |
| | maximum clock frequency | 2bytes |
| | block size | 1byte |
| | mic capacity | 1byte |
| | write protect top address | 2bytes |
| | write protect count | 2bytes |
| | reserved | 1byte |
| | application ID | 1byte |
| | offset | 2bytes |

FIG. 11

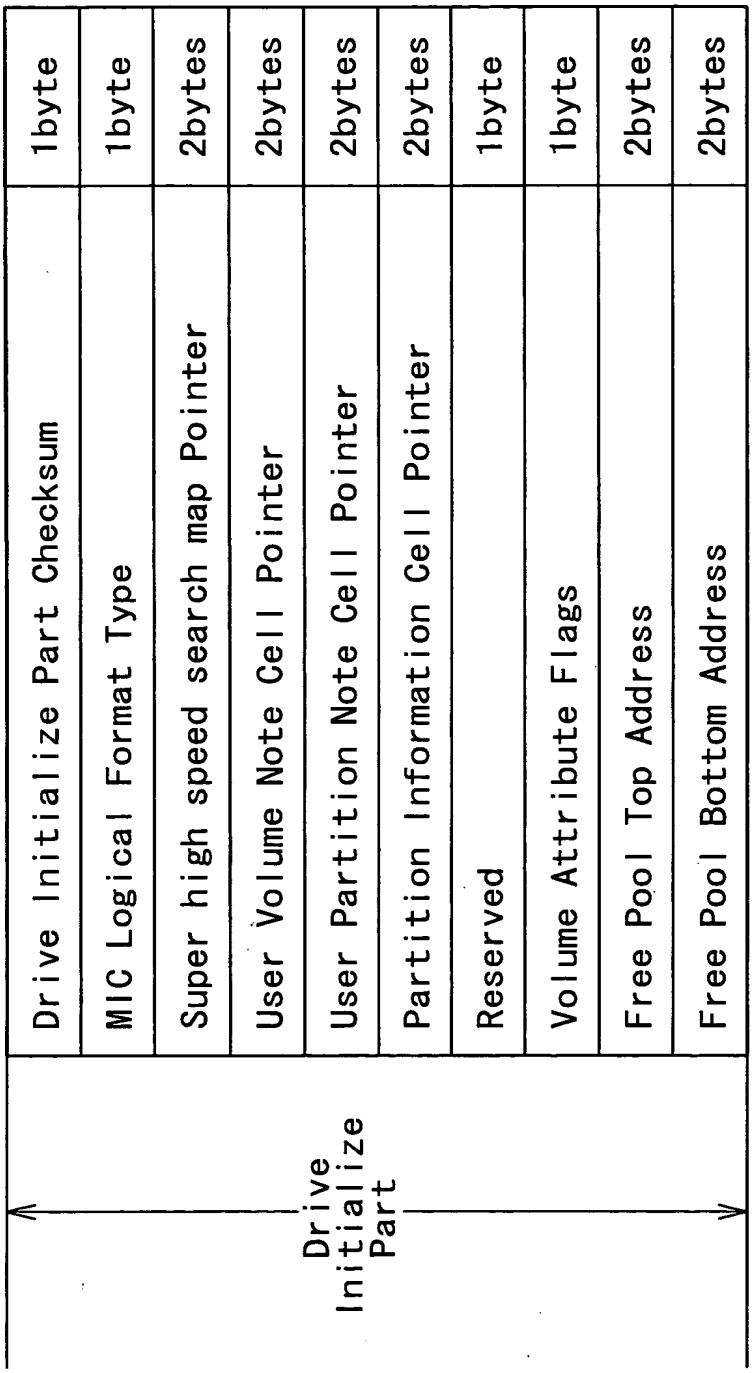

Drive Initialize Part
Drive Initialize Part Checksum
1byte
MIC Logical Format Type
1byte
Super high speed search map Pointer
2bytes
User Volume Note Cell Pointer
2bytes
User Partition Note Cell Pointer
2bytes
Partition Information Cell Pointer
2bytes
Reserved
1byte
Volume Attribute Flags
1byte
Free Pool Top Address
2bytes
Free Pool Bottom Address
2bytes

FIG. 12

| Value | Definition |
|---|---|
| 0 | AIT-1 Virgin MIC |
| 1 | AIT-1 Basic MIC Logical Format Type 1 |
| 2 to 9 | Reserved |
| 10 | AIT-2 Virgin MIC |
| 11 | AIT-2 Basic MIC Logical Format Type 1 |
| 12 to 13 | Reserved |
| 14 | AIT-2 Virgin Remote MIC |
| 15 | AIT-2 Basic Remote MIC Logical Format Type 1 |
| 16 to 19 | Reserved |
| 20 | AIT-3 Virgin Remote MIC |
| 21 | AIT-3 Basic Remote MIC Logical Format Type 1 |
| 22 to 255 | Reserved |

FIG. 13

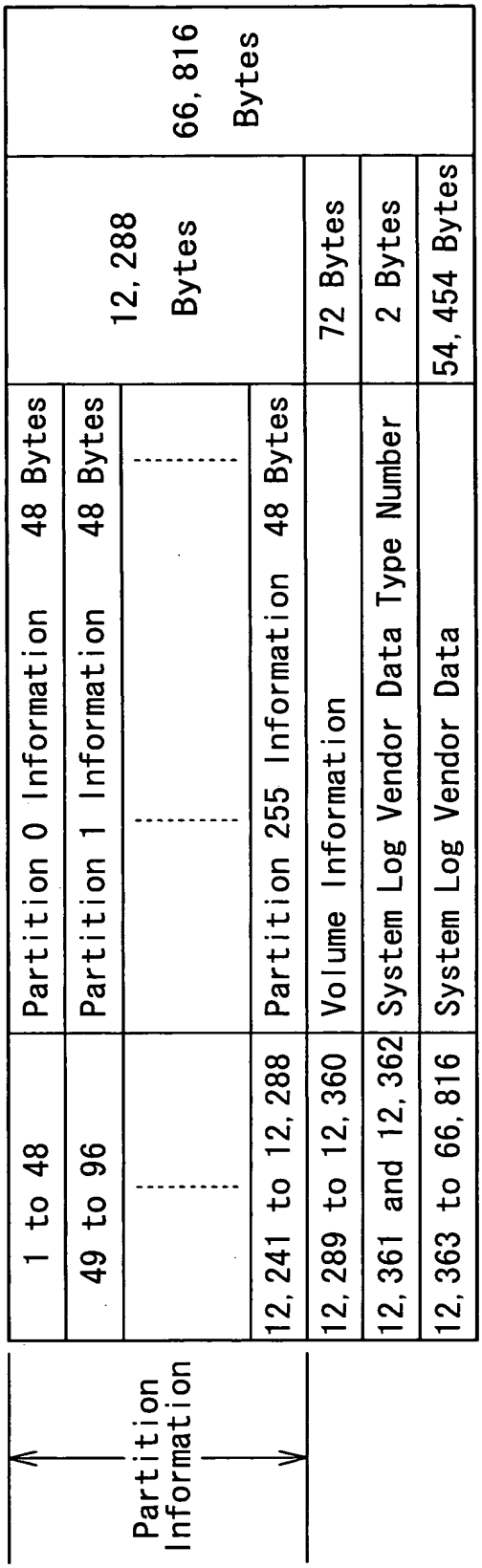
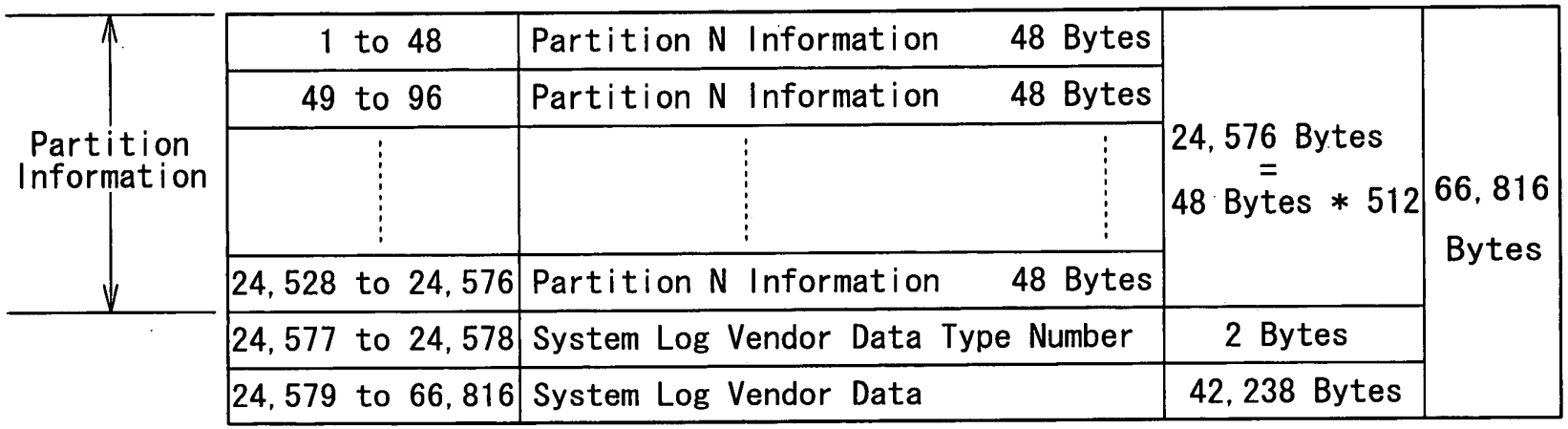
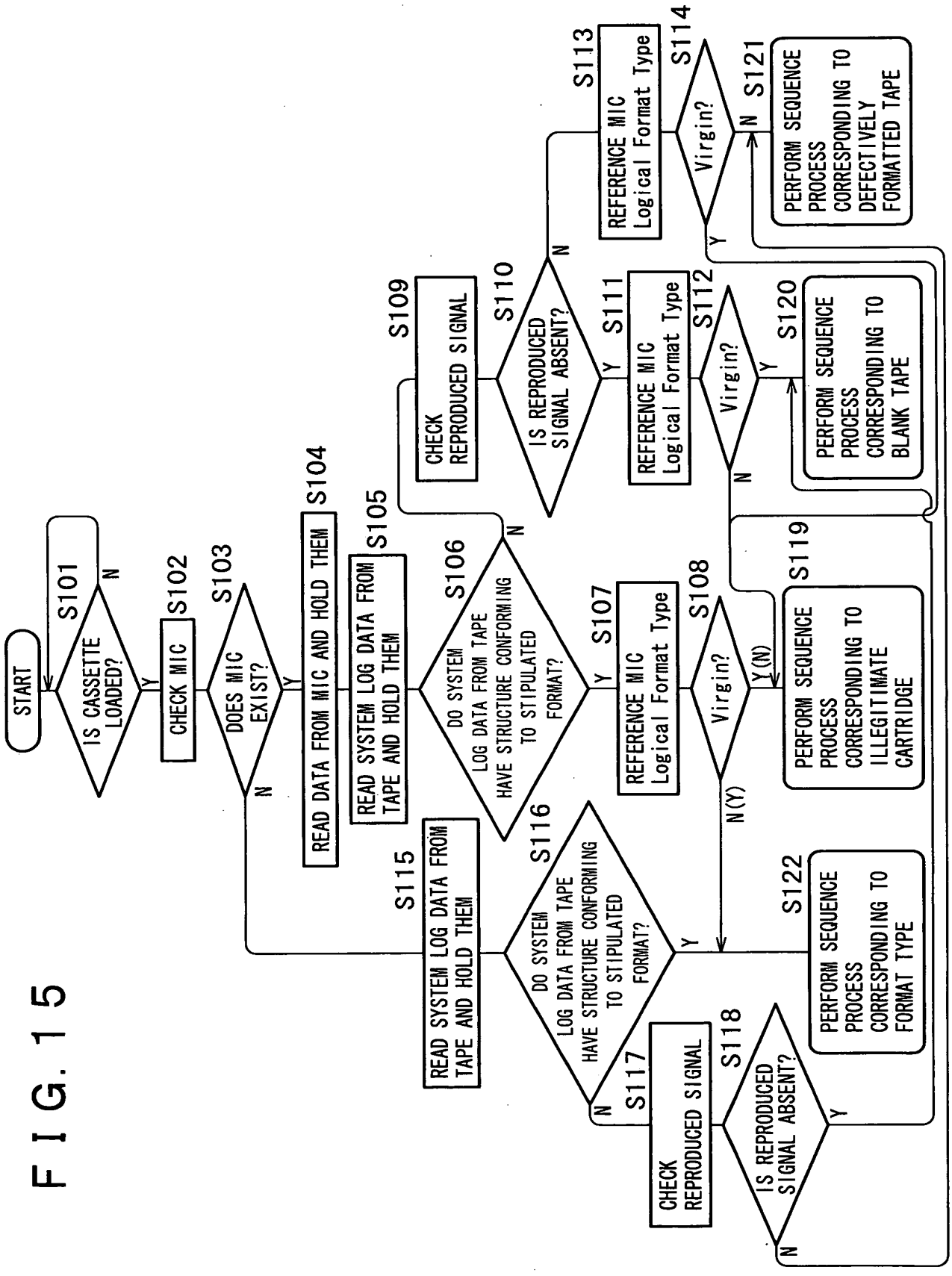

Partition Information
1 to 48
Partition 0 Information 48 Bytes
49 to 96
Partition 1 Information 48 Bytes
12,241 to 12,288
Partition 255 Information 48 Bytes
12,289 to 12,360
Volume Information
72 Bytes
12,361 and 12,362
System Log Vendor Data Type Number
2 Bytes
12,363 to 66,816
System Log Vendor Data
54,454 Bytes
12,288 Bytes
66,816 Bytes

FIG. 14




System Log with Vendor Data information(Type 1)

FIG. 15


START
S101
IS CASSETTE LOADED?
N
Y
S102
CHECK MIC
S103
DOES MIC EXIST?
Y
N
S104
READ DATA FROM MIC AND HOLD THEM
S105
READ SYSTEM LOG DATA FROM TAPE AND HOLD THEM
S106
DO SYSTEM LOG DATA FROM TAPE HAVE STRUCTURE CONFORMING TO STIPULATED FORMAT?
N
Y
S107
REFERENCE MIC Logical Format Type
S108
Virgin?
Y(N)
N(Y)
S109
CHECK REPRODUCED SIGNAL
S110
IS REPRODUCED SIGNAL ABSENT?
N
Y
S111
REFERENCE MIC Logical Format Type
S112
Virgin?
Y
N
S113
REFERENCE MIC Logical Format Type
S114
Virgin?
Y
N
S115
READ SYSTEM LOG DATA FROM TAPE AND HOLD THEM
S116
DO SYSTEM LOG DATA FROM TAPE HAVE STRUCTURE CONFORMING TO STIPULATED FORMAT?
N
Y
S117
CHECK REPRODUCED SIGNAL
S118
IS REPRODUCED SIGNAL ABSENT?
N
Y
S119
PERFORM SEQUENCE PROCESS CORRESPONDING TO ILLEGITIMATE CARTRIDGE
S120
PERFORM SEQUENCE PROCESS CORRESPONDING TO BLANK TAPE
S121
PERFORM SEQUENCE PROCESS CORRESPONDING TO DEFECTIVELY FORMATTED TAPE
S122
PERFORM SEQUENCE PROCESS CORRESPONDING TO FORMAT TYPE